

**REMARKS**

Claims 1-42 are pending in this application. The Examiner rejected Claims 18, 19, 37, 38, and 40-42 and allowed Claims 1-17, 20-36 and 39.

**Claims 18, 19, 37, 38, and 40-42 are Patentable over Papineni**

The Examiner rejected Claims 18, 19, 37, 38, and 40-42 under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 6,246,981 to Papineni (“Papineni”).

**Claims 18, 37 and 42**

As discussed in more detail in the previously filed response, the invention of Claim 18 is directed towards speech recognition. The claimed invention selects attribute value candidates that exceed a prescribed likelihood threshold as attribute value leading candidates. Selecting attribute value leading candidates serves to narrow down the possible attribute value candidates without having to uniquely determine the attribute value. The Examiner alleged that Papineni describes the narrowing down of candidates, as claimed by Claim 18. Papineni describes a dialog manager and script. The system operates using either text or speech. Col. 5, lines 22-24. Although the system can use speech recognition, the “natural language understanding unit . . . may be performed by conventional units,” so the focus of Papineni is task completion, not speech recognition. Col. 8, lines 11-17. The dialog manager described by Papineni has “task-oriented forms for associating user input information therewith, the dialog manager being capable of selecting an applicable form from the task-oriented forms responsive to the input information.” Col. 3, lines 10-16.

In particular, the Examiner cited elements 100, 120 and 140 of Figure 2. The cited sections of Papineni describe the generation of messages to the user. Element 100 of Figure 2 describes that a list of (attribute, value) pairs are input to the dialog management system and stored in memory. *See* Col. 10, lines 61-66. Element 120 describes determining whether there is a “slot focus” to the current form. Col. 11, lines 25-31. A form includes a set of

slots and each slot in turn includes a list of attributes that match the slot. Col. 9, lines 1-5. If there is a slot focus, then the system determines whether there are any slot level messages and if so, generates the slot level message to the user. Col. 11, lines 29-31. Element 140 describes handling a pending confirmation by determining whether there is any form awaiting confirmation by the user or whether the user stated any additional tasks. Col. 11, lines 39- 47.

The cited sections of Papineni describe the generation of messages to the user in order to identify and complete a predetermined form that corresponds to a particular task. In particular, Figure 2 describes identifying the best scoring form by determining the number of slots completed by the user's input and then processing the form to complete the associated task. Although the communication between the user and the dialog manager can use voice, the cited sections of Papineni describe the performance of a task, not voice recognition of the user's input.

In contrast to Papineni, Claim 18 recites processing a user's speech input by narrowing down the number of retrieval key candidates to only those corresponding to the attribute value leading candidates (without uniquely determining the attribute value) and then using a single confirmation process to determine the retrieval key from the retrieval key candidates. Since Papineni does not describe each and every element of Claim 18, it is submitted that Claim 18 is patentable over Papineni.

Claims 37 and 42 contain similar elements to those of Claim 18. The comments made above in support of the patentability of Claim 18 are equally applicable to distinguish Claims 37 and 42 from Papineni. Claims 19 and 38 depend from independent Claims 18 and 37 respectively and are allowable for at least the same reasons as Claims 18 and 37.

#### **Claims 40 and 41**

Claim 40 recites retrieval key candidates that are divided into prioritized recognition target words and non-prioritized recognition target words. The prioritized recognition target

words can be processed within the prescribed processing time and have relatively higher importance levels based on statistical information. The Examiner alleged that Papineni describes the priority of target words. The cited section of Papineni describes that words are tagged and then grouped into subgroups, which are labeled. The subgroups or labels can be further combined into higher-level constituents, which can also be labeled. Papineni describes that the labels are used for semantic representation and to assemble a list of (attribute, value) pairs. Col. 8, lines 46-47. Although there may be a hierarchy described by the labels of Papineni, the hierarchy is not based on processing time, as required by Claim 40. Furthermore, the labels described by Papineni are used for task processing, not for speech recognition, as required by Claim 40.

Claim 41 depends from independent Claim 40 and is allowable for at least the same reasons as Claim 40.

#### **REQUEST FOR INTERVIEW**

The undersigned requests a telephone interview with the Examiner to discuss this application and will call the Examiner within the next few weeks to schedule an interview. If the Examiner is ready to examine the application prior to the interview, it is respectfully requested that the Examiner contact the undersigned at 404/685-6799 so that the interview can be conducted prior to the Examiner's reconsideration of the application.

#### **CONCLUSION**

The foregoing is submitted as a complete response to the Office Action identified above. This application should now be in condition for allowance, and the Applicants solicit

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a notice to that effect. If there are any issues that can be addressed via telephone, the Examiner is asked to contact the undersigned at 404.685.6799.

Respectfully submitted,



By: Brenda O. Holmes  
Reg. No. 40,339

KILPATRICK STOCKTON LLP  
1100 Peachtree Street, Suite 2800  
Atlanta, Georgia 30309-4530  
Telephone: (404) 815-6500  
Facsimile: (404) 815-6555  
Our Docket: 44471/287603